

Remarks

At the time of the Final Rejection, claims 1-6, 8, 10, 11, 15-18 and 20-23 were present application. Of those claims, claims 1, 6 and 15 were independent claims.

In the last Office Action all of the claims have been finally rejected as follows:

1. Claims 1, 3-5, 8-11, 15 and 17-18 were rejected as indefinite under 35 U.S.C. §112 for containing the term "about"; and
2. Claims 1-6, 8, 10, 11 and 15-23¹ were rejected as obvious under 35 U.S.C. §103(a) over HASKINS et al (5,861,209) in view of HUSBAND (5,731,034), both previously relied upon, and GOVERS (EP 0 952 483), newly relied upon.

Neither HASKINS et al nor HUSBAND recognizes or suggests the coating of anything with a polyolefin resin, much less the coating of a pigment layer having the particle size distribution of the present claimed invention. Moreover, neither HASKINS et al nor HUSBAND discloses a polyolefin coating on a pigment layer for the

¹Claim 19 was previously cancelled.

purpose of the present invention, i.e. conservation in amount of polyolefin and/or reduction in pit level, or any other purpose. All of the present independent claims 1 and 15² include the combination of a pigment layer on the raw paper and a polyolefin layer on the pigment layer.

The essential finding of HASKINS et al is that calcium carbonate provides a good coating for gravure printing when the particle size distribution of the calcium carbonate is at least bimodal if not multimodal. A multimodal distribution means that there are two or more distributions peaking at different particle sizes. An example of a bimodal pigment size distribution is shown in HASKINS et al FIG. 1. having one peak at about 0.4 to 0.6 μm and the other peak between 6 and 7 μm . This is explained in detail in column 4, lines 2 to 33 of HASKINS et al. This bimodal particle size distribution is considered advantageous in HASKINS et al for rotogravure printing because it decreases so called missing dots during the gravure printing process.

In fact the calcium carbonate coating of HASKINS et al forms the surface which is printed upon by the gravure printing method in contrast to the claimed invention in which the pigment coating simply forms a surface upon which the polyolefin coating is applied.

² Claim 6 has now been amended from an independent claim to a dependent claim depending from claim 1.

The present invention is not directed to a bimodal or multimodal pigment particle size distribution. In contrast a very narrow particle size distribution is claimed. The pigment coating of the invention is not intended to be printed on. Moreover, it is not intended to be printed by rotogravure printing. A skilled person in the art of the present invention would not consider HASKINS et al which is directed only to direct rotogravure printing on the pigment coating. There is nothing disclosed in HASKINS et al that could be of relevance to the support of the present invention in which a polyolefin coating is applied to the pigment coating.

According to the present invention a very smooth surface is made possible by the pigment coating, in particular calcium carbonate and clay. This surface is then coated with the polyolefin coating to obtain a support which then can be provided with a photographic emulsion or another functional layer such as an ink-receiving onto the polyolefin coating. The surface smoothness is important to reduce the amount of polyolefin to be coated on the support. The smoother the surface, the lower the amount of the polyolefin. It is a purpose of the present invention to reduce the amount of the polyolefin resin to decrease costs. It is also possible to use rougher less expensive base papers because of the presence of the intermediate pigment layer.

HUSBAND discloses a paper coating composition comprising an aqueous cationic dispersion of a particulate calcium carbonate pigment and a non-ionic or cationic adhesive. According to column 5, lines 5 to 9, the adhesive has the function of a binder. The paper coated according to HUSBAND can be used for a wide range of applications such as offset lithography, offset printing and gravure printing (col. 5, lines 4-9). None of the paper used for those printing purposes requires a polyolefin coating as set forth in the present claimed invention. Thus, like HASKINS et al, HUSBAND contains no teaching or suggestion of such a polyolefin layer.

Moreover, according to HUSBAND no more than 1% of the pigment particles have a particle size of larger than $10\mu\text{m}$, at least 65% by weight of the pigment particles have a particle size smaller than $2\mu\text{m}$, and not more than 10% by weight have a particle diameter smaller than $0.25\mu\text{m}$ (col. 2, lines 1-8). Thus, the particle size distribution of HUSBAND again is clearly not as narrow as set forth in the present claimed invention.

Finally, the newly cited GOVERS discloses a paper support for photographic printing paper in which at least the top side has a pigmented coating based on clay and/or other pigment and another pigmented polymer resin layer on the pigmented coating. However, GOVERS is silent as to the particle size of the pigment and, therefore, does not contribute anything toward the critical failure

of disclosure of the use of the quite narrow range of particle sizes set forth in claims 1 and 15.

Accordingly, even when all of the disclosures of HASKINS et al, HUSBAND and GOVERS are combined, there still remains a critical failure of disclosure or suggestion of the quite narrow particle size limitations set forth in independent claims 1 and 15.

As to the §112 indefiniteness rejection, applicants continue to respectfully submit that the use of the term "about" is quite clear as to scope in the present application, and that the §112 rejection should be reconsidered and withdrawn.

The terminology "about" as used in the claims appeared not only in the original claims as filed, but also in the original description in the specification at pages 3 and 4. And, the MPEP § 2173.05(b)A expressly permits the use of the term "about" as being definite, and nothing exists in the present disclosure which would render that term indefinite. It is true that in *Amgen, Inc. v. Chugai Pharmaceutical Co.*, 927 F.2d 1200, 18 USPQ2d 1016 (Fed. Cir. 1991) cited in the last Office Action, the Court held "about" to be indefinite when faced with facts unique to that particular case. However, the *Amgen* case is clearly distinguishable from the circumstances here on its unique facts. The patent in *Amgen* involved an isolated DNA sequence and the claim language at issue was that it had "a specific activity value of at least about 160,000". Facts in *Amgen* included that (1) the determination of

specific activity was an imprecise form of measurement with a range of error which was inherent in the form of measurement, (2) the prior art was close with a specific activity of 120,000, (3) claims to "at least 120,000" had to be canceled in view of the prior art and replaced by the "at least about 160,000" claim language, (4) the partner of one of the defendants questioned whether a specific activity value of 138,000 was within the claimed coverage, (5) the lower court found that the use of the word "about" seemed to constitute an effort to recapture a mean specific activity somewhere between 120,000 which was anticipated by the prior art and 160,000 which was previously allowed, (6) the prior art showed a specific activity of 128,620, (7) nothing in the specification, prosecution history or prior art provided any indication of what was meant by the term "about" , and (8) no expert testified as to a definite meaning for that term, and in fact, one expert testified that it probably was somewhere as little as a 155,000 but that he had not "given a lot of direct considerations to that. . . . " Under those circumstances, the Federal Circuit in *Amgen* found the term to be indefinite. Few if any of those circumstances exist in the present case.

In addition, *Morton Int'l, Inc. v. Cardinal Chemical Co.* 5 F. 3d 1464, 1470, 28 USPQ2d 1190, 1195 (Fed. Cir 1993) is cited in the last Office Action for the proposition that "if the language of the claim is such that a person of ordinary skill in the art could not

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interpret the metes and bounds of the claim so as to understand how to avoid infringement, a rejection of the claim under 35 U.S.C. §112, second paragraph would be appropriate." However, the issues involved in that case had nothing to do with the use of the term "about".

For the above reasons, it is respectfully submitted that all of the claims remaining in the present application, claims 1-6, 8, 10, 11, 15-18 and 20-26 are in condition for allowance. Accordingly, favorable reconsideration and allowance are requested.

Respectfully submitted,

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